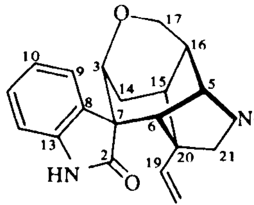
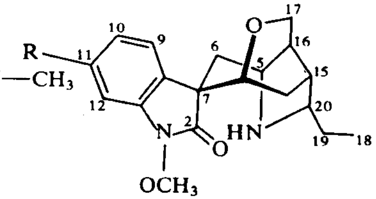


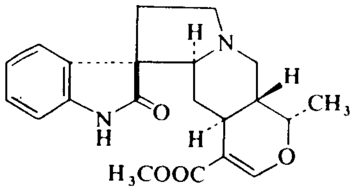
(19)



R = H (**20**)
R = OCH₃ (**21**)

Gelsemium extracts were used in pharmacy in the late 19th century. Of e many alkaloids present, gelsemicine (**20**) appears to be the most toxic d mainly responsible for the characteristic effects of extracts. In minute oses it stimulates respiration but in larger doses it causes death by respira- ry paralysis (Saxton, 1965c).

Genera *Mitragyna* and *Uncaria* (Rubiaceae) contain many alkaloids. We ention here some of the more important compounds: mitraphylline (**22**), itragynine (**23**) and rhyncophylline (**24**).



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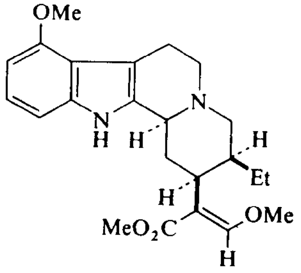
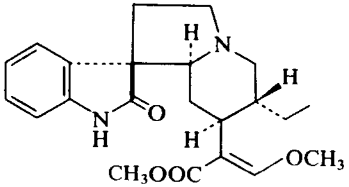


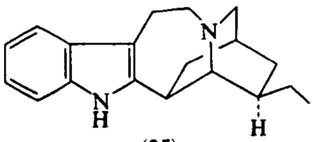
(23)



(24)

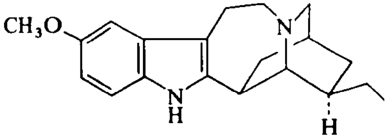
At one time *Mitragyna* extracts were used as a cocaine-like febrifuge. yncophylline (**24**) exhibits some antipyretic and hypotensive activity xton, 1965b). None of the compounds are used in medicine today, hough the leaves of *Mitragyna speciosa*, a tree banned in Thailand, are l chewed or smoked for their narcotic effect.

IX. IBOGAMINE-TYPE



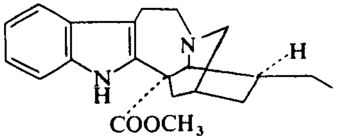
(25)

Alkaloids of ibogamine (**25**) type were isolated following reports of activities described for roots of *Tabernanthe iboga*. This *Apocynaceous* shrub from French Equatorial Africa was used by natives to combat fatigue, sleep and hunger. The main alkaloid present in the root is ibogaine (**26**); it was shown in animals to produce central effects including fear and escape responses (Schneider and Sigg, 1957) and excitation and tremor (Zetler and Unna, 1959), but there do not appear to have been any studies in which the pure substance has been administered to man (Brimblecombe, 1973a).



(26)

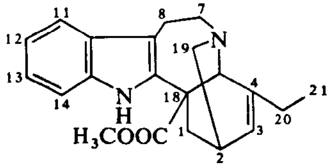
Another related alkaloid is coronaridine (**27**) from a different species of the subtribe Tabernaemontanineae (Zetler, 1964). This compound was tested as a hydrochloride salt and found to be an effective antifertility agent in rats (Mehrotra and Kamboj, 1978).



(27)

This activity appeared to be entirely due to its oestrogenic properties as shown in a variety of tests in rats.

X. CATHARANTHINE (28)



(28)